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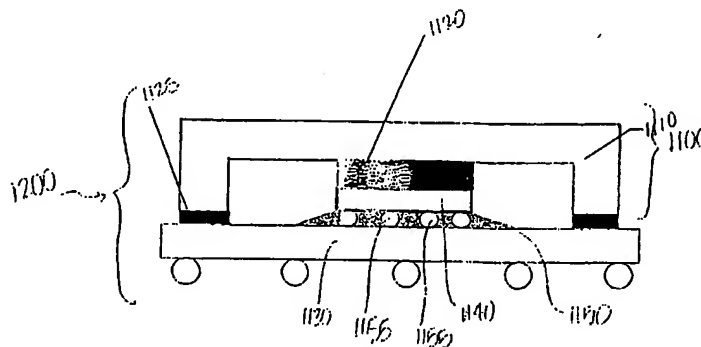
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(54) Title: **THERMAL INTERCONNECT AND INTERFACE SYSTEMS, METHODS OF PRODUCTION AND USES THEREOF**



(57) Abstract: Components and materials, including thermal transfer materials, contemplated herein comprise at least one heat spreader component, at least one thermal interface material and in some contemplated embodiments at least one adhesive material. The heat spreader component comprises a top surface, a bottom surface and at least one heat spreader material. The thermal interface material is directly deposited onto at least part of the bottom surface of the heat spreader component. Methods of forming layered thermal interface materials and thermal transfer materials include: a) providing a heat spreader component, wherein the heat spreader component comprises a top surface, a bottom surface and at least one heat spreader material; b) providing at least one thermal interface material, wherein the thermal interface material is directly deposited onto the bottom surface of the heat spreader component; and c) depositing the at least one thermal interface material onto the bottom surface of the heat spreader component. Methods of forming a thermal solution/package and/or IC package includes: a) providing the thermal transfer material described herein; b) providing at least one adhesive component; c) providing at least one surface or substrate; d) coupling the at least one thermal transfer material and/or material with the at least one adhesive component to form an adhesive unit; e) coupling the adhesive unit to the at least one surface or substrate to form a thermal package; f) optionally coupling an additional layer or component to the thermal package.

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